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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,031	09/28/2001	Donald E. Drumm	W00528/70010 JNA	4581

23628 7590 03/12/2004
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EXAMINER

TAYLOR, APRIL ALICIA

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/966,031

Applicant(s)

DRUMM, DONALD E.

Examiner

April A. Taylor

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aw

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-9,11-13,15-19,21-24,29,36-41,45-53 and 57 is/are rejected.
- 7) ☒ Claim(s) 3-6,10,14,20,25-28,30-35,42-44,54-56 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 28 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/5/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Receipt is acknowledged of the Preliminary Amendment filed 28 September 2001.

Claim Objections

2. Claim 44 is objected to because of the following informalities: Substitute "uni-directional type bar code" with – uni-directional bar code – (see line 5). Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 7-9, 11-13, 15-19, 21-24, 29, 40, 41, 45-53, and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Heske, III (US 5,760,383), (hereinafter Heske), cited by the applicant.

Re claims 1, 9, 11-13, 16: Heske teaches a method of generating a bar code signal that simulates light reflected from a bar code, comprising the acts of: detecting a bar code scanner signal to provide a detected bar code scanner signal; providing a bar code signal having a first state that corresponds to a bar of a bar code and a second state that corresponds to a space of the bar code; providing the bar code signal with a

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sequence of the first state of the bar code signal and the second state of the bar code signal to simulate light reflected from the bar code; detecting a scanning speed of the bar code scanner signal; determining whether the bar code scanner signal is from a unidirectional bar code scanner; predicting a timing between successive pulses of the bar code scanner signal to provide predicted timings of the bar code scanner signal. (See col. 2, line 35 to col. 5, line 27)

Re claims 2 and 15: Heske teaches wherein the act of providing the bar code signal comprises providing each of the first state and the second state in the sequence with a duration corresponding to a width of the bar and a width of the space in the bar code (see col. 2, line 35 to col. 5, line 27).

Re claims 7, 17, and 21: Heske teaches wherein the act of detecting the scanning speed of the bar code scanner signal comprises measuring a delay interval between two detected signals (see col. 2, line 35 to col. 5, line 27).

Re claims 8 and 22: Heske teaches wherein the act of detecting the scanning speed of the bar code scanner signal comprises measuring a width of the detected bar code scanner signal (see col. 2, line 35 to col. 5, line 27).

Re claim 18: Heske teaches wherein the act of providing the bar code signal comprises generating a clock signal having a clock cycle.

Re claim 19: Heske teaches wherein the act of providing each of the first state and the second state with the duration comprises providing the duration as an integer number of clock cycles of the clock signal (see col. 2, line 35 to col. 5, line 27).

Re claim 23: Heske teaches a bar code simulator device that generates a bar code signal that emulates a light pattern reflected from a bar code, comprising: at least one light source that emits a coded light signal having a first state that corresponds to light reflected from a bar of the bar code and a second state that corresponds to light reflected from a space of the bar code; a controller that controls the at least one light source to provide the coded light signal with a sequence of the first state of the bar code signal and the second state of the bar code signal to simulate the light pattern reflected from the bar code; at least one detector that detects a bar code scanner signal to provide a detected bar code scanner signal; and detection circuitry coupled to the at least one detector that determines a scanning speed of the bar code scanner signal. (see col. 2, line 35 to col. 5, line 27)

Re claim 24: Heske wherein the detection circuitry determines the speed of the bar code scanner signal by determining a width of the detected bar code scanner signal. (see col. 2, line 35 to col. 5, line 27)

Re claim 29: Heske teaches wherein the controller controls the at least one light source to provide the coded light signal with the first state and the second state having a duration corresponding to a width of the bar and a width of the space in the bar code respectively. (see col. 2, line 35 to col. 5, line 27)

Re claim 40: Heske teaches wherein the device further comprises a light absorbing area, and wherein the at least one detector and the at least one light source are located within the light absorbing area. (see col. 2, line 35 to col. 5, line 27)

Re claim 41: Heske teaches wherein the at least one detector and the at least one light source are disposed in close proximity and in substantially vertical alignment. (see col. 2, line 35 to col. 5, line 27)

Re claim 45: Heske teaches wherein the detection circuitry determines an interval between successive pulses of the detected bar code scanner signal. (see col. 2, line 35 to col. 5, line 27)

Re claim 46: Heske teaches wherein the detection circuitry determines a predicted timing of a subsequent detected bar code scanner signal from the interval between detected bar code scanner signals, and wherein the controller controls the bar code simulator device to provide successive coded light signals to correspond with the predicted timing (see col. 2, line 35 to col. 5, line 27).

Re claim 47: Heske teaches wherein the device further comprises a memory device that stores at least one simulated bar code sequence (see col. 2, line 35 to col. 5, line 27).

Re claim 48 Heske teaches wherein the memory further comprises a user interface program (see col. 2, line 35 to col. 5, line 27).

Re claims 49 and 50: Heske teaches wherein the memory is coupled to the controller that executes the user interface program and the device further comprise a display.

Re claim 51: Heske teaches a device further comprising at least one input device that is coupled to the controller, and wherein the controller is configured to interact with the at least one input device. (see col. 2, line 35 to col. 5, line 27)

Re claim 52: Heske wherein the controller is further configured such that the contents of the memory can be browsed, displayed, or selected by the at least one input device. (see col. 2, line 35 to col. 5, line 27)

Re claim 53: Heske teaches wherein the device further comprises a scanner that emits the bar code scanner signal, and that comprises a detector that detects the emitted coded light signal. (see col. 2, line 35 to col. 5, line 27)

Re claim 57: Heske teaches wherein the device further comprises a housing to which is attached the at least one detector and the at least one light source, the housing comprising the detection circuitry and the controller, and having a portion shaped and arranged in the shape of a smart card (see figure 1; col. 2, line 35 to col. 5, line 27).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heske, III (US 5,760,383), (hereinafter Heske), cited by the applicant. The teachings of Heske have been discussed above.

Heske, III fails to teach or fairly suggest wherein the at least one light source comprises an infrared light source that emits light in an infrared frequency band; and

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wherein the at least one light source comprises a visible light source that emits light in a visible frequency band. However, the Examiner takes Official Notice that it is well known in the art for a light source to have an infrared light source that emits light in an infrared frequency band or a visible light source that emits light in a visible frequency band. Thus, it would have been an obvious expedient to provide either feature, as it would have been a matter of a design choice of the manufacturer.

Allowable Subject Matter

6. Claims 3-6, 10, 14, 20, 25-28, 30-35, 42-44, and 54-56 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art to Heske, III teaches method and apparatus for simulating barcode, however the prior art of record, taken alone or in combination, fail to teach or fairly suggest wherein the act of providing the barcode signal comprises adjusting the duration of each of the first state and the second state in sequence according to the detected scanning speed of the barcode scanner signal; wherein the act of providing the bar code signal comprises generating a clock signal having a clock cycle; wherein the act of providing each of the first state and the second state with the duration comprises providing the duration as an integer number of clock cycles of the clock

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signal; and wherein the act of adjusting the duration comprises varying a frequency of the clock signal.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Pat. No. 6,005,255 to Joseph US Pat. No. 5,959,286 to Dvorkis et al.

US Pat. No. 5,369,260 to Schuessler US Pat. No. 5,258,605 to Metlitsky et al.

US Pat. No. 4,990,756 to Hoemann

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to April A. Taylor whose telephone number is (571) 272-2403. The examiner can normally be reached on Monday - Friday from 6:30AM - 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [april.taylor@uspto.gov].


All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or

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exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


April Taylor
3 March 2004


THIEN M. LE
PRIMARY EXAMINER